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EXAMINER	
KIM, JUNG W	

ART UNIT	PAPER NUMBER
2132	

DATE MAILED: 02/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/014,640	KUPFER, MICHAEL D.	
	Examiner	Art Unit	
	Jung W. Kim	2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 December 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2,7-13,19-23,25,26 and 30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2, 7-13, 19-23, 25, 26 and 30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This Office action is responsive to the amendment filed on December 22, 2005.

2. Claims 2, 7-13, 19-23, 25, 26 and 30 are pending.

3. Claims 2, 7-13, 19-23, 25 and 26 are amended.

4. Claims 1, 3-6, 14-18, 24 and 27-29 are canceled.

5. Claim 30 is new.

Response to Amendment

6. The objections to claims 7, 11 and 17 are withdrawn as the amendment overcomes the objections.

7. The 112/2nd paragraph rejections for the inclusion of the trademark UNIX in claims 2, 7-13, 19-23, 25, 26 and 30 are withdrawn as the amendment overcomes the 112/2nd paragraph rejections; however, a new 112 rejection to amended claim 23 remains for the reasons listed below.

Response to Arguments

8. Applicant's arguments that Borr does not teach all limitations of the amended claims have been fully considered but they are not persuasive. In particular, Applicant alleges that "Borr does NOT teach a file-system-independent component of an operating system that effectively implements mandatory locks for a file system that does NOT provide mandatory locks for files that are stored in the file system and are

accessible to the operating system ... Borr does NOT teach a secure mechanism for changing the size of a file stored in the file system that does NOT provide mandatory locks." The first issue is that Applicant provides no basis for these allegations; merely supplying a bald statement does not fulfill Applicant's requirement to identify how their invention differs from the prior art of record. Secondly, Examiner respectfully disagrees that Borr does not teach these limitations. Borr's invention clearly identifies a filesystem accessible to operating systems including UNIX NFS and WINDOWS CIFS systems, and including a filesystem independent component that implements the mandatory locks for the filesystem. (fig. 2, reference no. 230 and related text; "cross-protocol lock manager") Moreover, the filesystem does not provide mandatory locks for files that are stored in the filesystem as these locks are managed by the cross-protocol lock manager. As such, the rejections under Borr are sustained. Note that the claims are also rejected as being anticipated by Samba as disclosed by Eckstein et al. "Using Samba." The rejections are final as all the scopes of the amended independent claims are changed.

Claim Objections

9. Claim 23 is objected to because of the following informalities: in line 14, replace "said least one mandatory lock category" with –said at least one mandatory lock category--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

12. Claim 23 recites the limitation "said first file system" in line 3 and "said system-independent component" in lines 5-6. There is insufficient antecedent basis for these limitations in the claim.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

14. Claims 2, 7-13, 19-23, 25, 26 and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Borr USPN 6,516,351 (hereinafter Borr).

15. As per claim 23, Borr discloses a computing environment (col. 1:37-40; 2:8-59), comprising:

a. a file system capable of storing one or more files therein, wherein said file system does not provide mandatory locks for files stored in the file system; (fig. 1, reference no. 110)

b. an operating system that can access files stored in the file system; (fig. 1, reference no. 130)

c. a filesystem independent portion of an operating system, wherein the filesystem independent component effectively implements mandatory locks for the filesystem (fig. 1, reference no. 112; fig. 2, reference nos. 220, 230 and 241-244) and is operable to:

i. receive a request to perform at least one operation on a file stored in the filesystem; (6:18-20)

ii. determine whether at least one mandatory lock is associated with the file; (6:20-26)

iii. determine a mandatory lock category or type for the at least one mandatory lock when the determining determines that at least one mandatory lock is associated with the file; (6:34-45)

iv. determine whether the at least one mandatory lock category or type is compatible with the at least one operation and determine at least partly based on compatibility of the lock category or type with the at least one

operation whether the at least one operation should be allowed; (6:46-50; 7:12-14) and

v. allow the at least one operation when the determining determines that the at least one operation should be allowed; (7:23-25) and

vi. wherein the at least one operation can be changing the size of a file in the filesystem. (create, delete or write operation)

16. As per claim 2, Borr discloses the filesystem independent component is further operable to deny the at least one operation when the determining determines that the at least one operation should not be allowed. (7:23-25)

17. As per claim 7, Borr discloses the at least one mandatory lock category can be a Byte-Range lock or a Shared Resource lock. (4:35-51; 5:48-61)

18. As per claim 8, Borr discloses the type of the Byte-Range lock can be exclusive or shared. (4:47-51)

19. As per claim 9, Borr discloses the Shared Resource lock can have a deny mode associated with it; and wherein the deny mode can be defined with respect to reading or writing of the file. (4:47-51)

20. As per claim 10, Borr discloses the at least one operation can be a read, write, delete, rename, memory map or change size operation. (6:34-45)

21. As per claim 11, Borr discloses the filesystem independent component is operable to:

d. receive a request to perform an operation on a file which has a mandatory Byte-Range lock associated with it; determine whether said requested operation may affect a byte range of the file; the byte range representing a portion of the file which is associated with the mandatory Byte-Range lock; and determine whether the operation is compatible with the Byte-Range lock when the determining determines that the requested operation may affect the byte range. (5:48-6:8)

22. As per claim 12, Borr discloses the filesystem independent component is further operable to determine whether the request was made by the owner of the Byte-Range lock when the determining determines that the operation is not compatible with the Byte-Range. (6:46-50; 7:12-14)

23. As per claim 13, Borr discloses the mandatory Byte-Range lock can be an exclusive or shared lock. (4:45-51)

24. As per claim 19, Borr discloses the filesystem independent operating system is further operable to:

e. determine whether a mandatory Byte-Range lock or a mandatory Shared Resource lock is associated with the file; (6:34-45)

f. determine whether the Shared Resource lock includes a deny write operation when it is determined that a mandatory Shared Resource lock is associated with the file; (5:49-57) and

g. identify a region of the file which would be affected by changing the size of the file when it is determined that a mandatory Byte-Range lock has been associated with the file. (5:58-61; a create, delete or write operation changes the size of the file)

25. As per claim 20, Borr discloses the filesystem independent component is further operable to:

h. determine whether the identified region intersects a locked region of the file; and allow the request to change the file size when it is determined that the identified region does not intersect the locked region of the file. (5:58-61)

26. As per claim 21, Borr discloses the filesystem independent component is further operable to determine whether the request was made by the owner of the mandatory Byte-Range lock or mandatory Shared Resource lock. (6:46-50; 7:12-14)

27. As per claim 22, Borr discloses the request to change the file size is allowed when the determining whether the Shared Resource lock does not include a deny write operation. (7:23-25)

28. As per claim 25, Borr discloses the at least two categories comprise Byte-Range locks and Shared Resource locks. (fig. 2, reference nos. 241 and 242 and related text)

29. As per claim 26, Borr discloses the mandatory locks can be enforced with respect to read, write, delete, rename, memory map, or change size operations. (6:34-51)

30. As per claim 30, Borr discloses a computer readable medium that stores computer program code for the filesystem independent component recited in claim 23. (fig. 1)

31. Claims 2, 7-13, 19-23, 25, 26 and 30 are rejected under 35 U.S.C. 102(a) as being anticipated by Eckstein et al. Using Samba. (hereinafter Eckstein)

32. As per claim 23, Eckstein discloses a computing environment, comprising:

i. a file system capable of storing one or more files therein, wherein said file system does not provide mandatory locks for files stored in the file system; (pgs.

2-3 "What is Samba?"; samba is a suite of UNIX applications that allows a UNIX server to use SMB to communicate with Windows CIFS; pg. 4, fig. 1-1, "Server")

j. an operating system that can access files stored in the file system; (pg. 4, fig. 1-1, "Client")

k. a filesystem independent portion of an operating system, wherein the filesystem independent component effectively implements mandatory locks for the filesystem (pg. 4, fig. 1-1, "Samba 2.0") and is operable to:

vii. receive a request to perform at least one operation on a file stored in the filesystem; (pg. 2, 1st paragraph)

viii. determine whether at least one mandatory lock is associated with the file; (pg. 149, "Locks and Oplocks")

ix. determine a mandatory lock category or type for the at least one mandatory lock when the determining determines that at least one mandatory lock is associated with the file; (pg. 149, "Locks and Oplocks," byte-range locking or deny-mode locking [Shared Resource locking]; pgs. 151-154)

x. determine whether the at least one mandatory lock category or type is compatible with the at least one operation and determine at least partly based on compatibility of the lock category or type with the at least one operation whether the at least one operation should be allowed; (pg. 149, "Locks and Oplocks," "if another process attempts to write to a file (or section of one) that is already locked, it will receive an error from the

operating system and will wait until the lock is released;" pgs. 151-154) and

xi. allow the at least one operation when the determining determines that the at least one operation should be allowed; (access given when there is no lock) and

xii. wherein the at least one operation can be changing the size of a file in the filesystem. (any create, delete or write operation)

33. As per claim 2, Eckstein discloses the filesystem independent component is further operable to deny the at least one operation when the determining determines that the at least one operation should not be allowed. (pg. 149, "Locks and Oplocks," "if another process attempts to write to a file (or section of one) that is already locked, it will receive an error from the operating system and will wait until the lock is released")

34. As per claim 7, Eckstein discloses the at least one mandatory lock category can be a Byte-Range lock or a Shared Resource lock. (pg. 149, "Locks and Oplocks," byte-range locking or deny-mode locking [Shared Resource locking]; pgs. 151-154)

35. As per claim 8, Eckstein discloses the type of the Byte-Range lock can be exclusive or shared. (pgs. 151-154, especially "locking" and "strict locking")

36. As per claim 9, Eckstein discloses the Shared Resource lock can have a deny mode associated with it; and wherein the deny mode can be defined with respect to reading or writing of the file. (pg. 151, Table 5-9, "DENY_READ" and "DENY_WRITE")

37. As per claim 10, Eckstein discloses the at least one operation can be a read, write, delete, rename, memory map or change size operation. (pg. 149, "Locks and Oplocks")

38. As per claim 11, Eckstein discloses the filesystem independent component is operable to:

I. receive a request to perform an operation on a file which has a mandatory Byte-Range lock associated with it; determine whether said requested operation may affect a byte range of the file; the byte range representing a portion of the file which is associated with the mandatory Byte-Range lock; and determine whether the operation is compatible with the Byte-Range lock when the determining determines that the requested operation may affect the byte range. (pg. 149, "Locks and Oplocks" and pgs. 151-154)

39. As per claim 12, Eckstein discloses the filesystem independent component is further operable to determine whether the request was made by the owner of the Byte-Range lock when the determining determines that the operation is not compatible with the Byte-Range. (pgs. 151-154)

40. As per claim 13, Eckstein discloses the mandatory Byte-Range lock can be an exclusive or shared lock. (pgs. 151-154, especially "locking" and "strict locking")

41. As per claim 19, Eckstein discloses the filesystem independent operating system is further operable to:

m. determine whether a mandatory Byte-Range lock or a mandatory Shared Resource lock is associated with the file; (pg. 151, Table 5-8 "share modes" and "locking")

n. determine whether the Shared Resource lock includes a deny write operation when it is determined that a mandatory Shared Resource lock is associated with the file; (pg. 151, Table 5-9 "DENY_WRITE") and

o. identify a region of the file which would be affected by changing the size of the file when it is determined that a mandatory Byte-Range lock has been associated with the file. (pg. 151, Table 5-8 "locking" and "strict locking"; any create, delete or write operation changes the size of the file)

42. As per claim 20, Eckstein discloses the filesystem independent component is further operable to:

p. determine whether the identified region intersects a locked region of the file; and allow the request to change the file size when it is determined that the identified region does not intersect the locked region of the file. (pg. 151, Table 5-

8 "locking" and "strict locking"; any create, delete or write operation changes the size of the file)

43. As per claim 21, Eckstein discloses the filesystem independent component is further operable to determine whether the request was made by the owner of the mandatory Byte-Range lock or mandatory Shared Resource lock. (locks prevents concurrent uses of a resource)

44. As per claim 22, Eckstein discloses the request to change the file size is allowed when the determining whether the Shared Resource lock does not include a deny write operation. (pg. 151, Table 5-9 "DENY_WRITE")

45. As per claim 25, Eckstein discloses the at least two categories comprise Byte-Range locks and Shared Resource locks. (pg. 149, "Locks and Oplocks," "deny-mode locking" and "byte-range locking")

46. As per claim 26, Eckstein discloses the mandatory locks can be enforced with respect to read, write, delete, rename, memory map, or change size operations. (pg. 149, "Locks and Oplocks")

47. As per claim 30, Eckstein discloses a computer readable medium that stores computer program code for the filesystem independent component recited in the rejection of claim 23. (pg. 2, 1st sentence)

Conclusion

48. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Communications Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung W. Kim whose telephone number is 571-272-3804. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jung W Kim
Examiner
Art Unit 2132

February 9, 2006

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